EINSTEIN

LCD Chess Wizard

EINSTEIN BRAIN GAMES

Model No. E123

Congratulations on your purchase of Einstein LCD Chess Wizard. Now, the challenging game of Chess can travel with you anywhere. Einstein LCD Chess Wizard offers varying levels of challenging computer opponents, has simple, intuitive controls and is an expert chess teacher!

Albert Einstein is probably best known for his famous formula, $E=mc^2$, but this German-born theoretical physicist made unparalleled contributions to modern scientific thought. In the field of physics, he introduced his special theory and general theory of relativity and, in 1921, his work on the photoelectric effect won him the Nobel Prize in Physics.

Einstein enjoyed playing the violin and for much of his life, greatly enjoyed the game of chess. He routinely asked children he met if they liked music or if they could play chess. He would then teach them the basics of the game, and would play that child every time that they met.

ABOUT ALBERT EINSTEIN

Born: March 14, 1879
Ulm, Württemberg, Germany

Died: April 18, 1955 (aged 76)
Princeton, New Jersey, USA

Residence: Germany, Italy, Switzerland, USA

Citizenship:
German (1879-1896, 1914-1933)
Swiss (1901-1955)
American (1940-1955)

Notable Awards:
Nobel Prize in Physics (1921)
Copley Medal (1925)
R.A.S Gold Medal (1925)
Max Planck Medal (1929)
Benjamin Franklin Medal (1935)

Honorary Doctorates: Princeton (1921)
Oxford (1931)
Harvard (1935)

Quotes:
"Whoever undertakes to set himself up as a judge of Truth and Knowledge is shipwrecked by the laughter of the gods."

"The secret to creativity is knowing how to hide your sources."

Items Included

1 Einstein LCD Chess Wizard Unit
1 User's Manual

Install the Batteries

Using a small Phillips screwdriver, remove the screw from the battery-compartment panel on the back of LCD Chess. Install two fresh, alkaline AAA batteries, making sure to follow the diagram in each battery slot so that the polarity (+ or -) of the batteries is correct.

Replace the battery compartment panel. When replacing the screw, secure it gently, do not force or over-tighten it.

Play a Game Right Away

After you have installed the batteries, the display will show the chess board with all the pieces on their starting squares. The LCD will also show PLAY. If it does not display PLAY, press *RESET* using a thin pointed object.

Unless you instruct it otherwise, LCD Chess gives you the White pieces—the ones at the bottom of the board. White always moves first. You're ready to play!

The way you select and make your move is very simple.

 • Press the *NEXT PIECE* or *PREVI-OUS PIECE* key to choose the piece you want to move.

 • The first move for that piece will flash. If you wish to select a different move for that piece, press the *NEXT MOVE* or *PREVIOUS MOVE* key.

(If you want to make a capture, it will be quicker to use the *PREVIOUS MOVE* key instead of the *NEXT MOVE* key).

 • Press the *GO* key to enter your selected move into the computer.

After you make your move, LCD Chess will reply with its move automatically.

You'll see the piece flash on its *from* square and move to its *to* square. You're already playing a game! Enjoy the contest.

Putting a game "on hold"

Any time it's your move and you wish to stop playing for a while, just press the *ON/OFF* key. LCD Chess will switch off and go into a sleep mode. It will remember the last position, including the elapsed time, as long as you do not interrupt the power supply-for example, by removing the batteries. To resume play, just press the *ON/OFF* key.

NOTE: If it is not "thinking," LCD Chess will automatically turn off after a period of time, saving your game position. Use the *ON/OFF* key to resume the game.
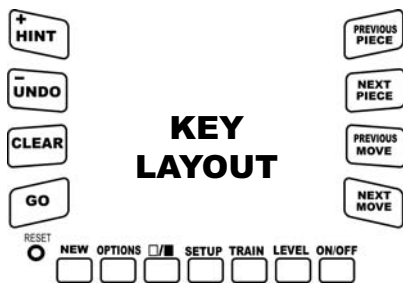
Key Functions

PREVIOUS PIECE KEY

Press repeatedly to scan backwards to select a piece to move.

NEXT PIECE KEY

Press repeatedly to scan forwards to select a piece to move.

PREVIOUS MOVE KEY

Press repeatedly to scan backwards through all legal moves of the selected piece. *NOTE: This key shows all legal*

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capture moves first. If you want to make a capture, use this key to quickly select your capture move.

NEXT MOVE KEY

Press repeatedly to scan forward through all legal moves of the selected piece.

ON/OFF KEY

Use this key to turn LCD Chess off and on. LCD Chess will remember the board position while it is off.

LEVEL KEY

Press this key to see the current level. Press the **+** or **-** keys to increase or decrease the level. Press the *LEVEL* key again to change the level type. Press *CLEAR* to resume play. (see page 7)

TRAIN KEY

Press this key to select a training position at the beginning of a game. Use the + or the - key to select one of eight training positions. Positions with the Black king in the middle give you practice in check-mating the Black king. Press *CLEAR* to start play. (see page 8)

CLEAR KEY

Use this key to exit any of the special modes like OPTIONS, SETUP, and LEVEL. Also use this key during move entry to clear your move entry , and start the move entry process over.

IMPORTANT NOTE:
When you are in check, you have very few moves. If you find you can't select the move you want to make, look for the '+' check sign. You probably forgot you are in check.

SETUP KEY

To setup or modify a position. (see page 9)

NEW KEY

Use this key to start a new game whenever it is your turn.

❑ / ■ KEY

Press this key to see the contrast setting , Cn 4 for example. Use the + or - keys to change the setting. Press the ❑ / ■ again or press *CLEAR* to resume play.

During **SETUP** use this key to change color to move or the color of the piece being setup (see page 9).

OPTIONS KEY

Pressing the *OPTIONS* key displays a number of options. To view a different option, press the *OPTIONS* key again, or the ❑ / ■ key. Press *CLEAR* to resume play.

Also use this key to flash the piece that is threatened when the threat warning "!" ICON is on.

+HINT KEY

Press this key if you want to get hints from your LCD Chess partner. It displays HINT and flashes a recommended move on the screen. To make the hint move, just press the *GO* key.

If the hint is a book move or a replay move, OPEN or RPLY will be shown instead of HINT .

Also use this key during SETUP mode to select the next piece type.

-UNDO KEY

This key lets you take back a move or moves you've decided against. Press this key repeatedly to continue taking back

moves. After you take back a move, you can use the **GO** key to replay the taken-back move or moves.

Also use this key during SETUP mode to select the previous piece type.

GO KEY
Press this to to register your move, or press this key twice *before* you register your move to switch sides (colors) with your LCD Chess. (Between presses, the display will show FLIP.) Also use *GO* to replay moves in the takeback move mode (see "*-UNDO*," on left).

Use the **+** or the **-** keys to change the condition of the following options.

Options Menu

Press **OPTIONS** to enter the options menu and repeatedly press to cycle through the menu of options. Press the **CLEAR** key to resume play.

Menu Options Before the Game Starts

OPEN: Use the + or the - key to select one of 32 book opening lines of play. (See page 6.)

Options Before and During the Game

bEEP: Use this option to turn the sound On or off.

PLYr: Select between: '1'—Human vs Computer; '2'—Human vs Human; '0'—Computer vs Computer.

SCOr: Turn this option OFF to display the move counter instead of the score. If you want to see the piece-score of your current position, turn this option on. The

scoring totals the following values: Pawns—1, Knights—3, Bishops—3, Rooks—5, and Queen—9.

HELP: When turned on, all legal moves for the selected piece will be shown at one time.

NOTE: When the HELP option is on, possible capturing moves are shown by flashing the captured pieces central black figure. Do not confuse this with selecting a capture move, which flashes the entire piece that is to be captured.

inFO: When turned on, this option will display the score, depth of search (number of moves LCD Chess is "thinking ahead"), best move it is considering playing, and clock times. These will be displayed while the computer is thinking at its higher levels.

FLiP: Use this option to turn the chess board around.

SLEP: Adjust the automatic shut off time with this key. Setting it to '0' will disable auto shut-off altogether.

CLbr: Pressing the **GO** key now, will enter SETUP mode with the chess board with only the White king. You must place a White and Black king on the board to exit SETUP mode. Use this option to clear the chess board for easier problem setup.

Playing the Black Pieces

When you want to play the Black pieces (to let LCD Chess move first) press the **GO** key before you make your first move as White. You'll see the White and Black pieces switch places immediately!

Draw Messages

During the game, your LCD Chess will display the word drAU if a three-time repetition of position occurs, or if there has been no pawn moved and no exchanges for 50 moves. When either of these situation takes place, the rules of chess state that a player can claim a draw. If you wish, you can ignore the message and continue the game. When a stalemate is reached, the display will show StAL.

Game-Ending Messages

LCD Chess will announce mate in two (MAtE2) and mate in three (MAtE3). It will also display +MAtE when executing a checkmate or when you checkmate LCD Chess.

Screen Symbols

When a '+' appears on the screen, it is a reminder that you are in check. When an '=' appears, it indicates you are in two human player mode. And lastly when an '!' appears on the screen, you are being warned that one of your pieces is threatened with capture. (This is similar to the friendly "en garde" warning sometimes used by human players when they are attacking an opponent's queen.) To see which of your pieces is threatened, press the *OPTIONS* key.

Auto Play

If you would like to watch the computer finish a game for you automatically, press the *OPTIONS* key repeatedly until the option PLYr is showing. Use the + button to change the number of players to zero. Press *CLEAR* to exit the OPTIONS mode. Now press the *GO* key twice and watch the game play itself. You may stop auto play at any time by pressing the *GO* key. Doing so will set the number of players back to one.

Book Opening Trainer

LCD Chess makes it easy for you to learn the same openings that world chess champions play! At the beginning of a game, you may choose to learn one of 32 popular book openings—ways to begin the game—used by chess masters. Press the *OPTIONS* key to display OPEN, and then press the + or - button to select the number of the opening you want to learn. (See below.) Press the *CLEAR* key to return to normal play.

Now play a move. If your move is not the correct opening move, an error buzz will sound. To learn the correct move press *HINT*. When the computer comes back with its move, you will briefly see the word OPEN on the screen if you have another opening move to make. If the word OPEN does not appear, you may continue normal play sinceyou have completed the training for that opening line.

The names of the openings are:

 1. **Ruy Lopez, Open Defense**
 2. **Ruy Lopez, Zaitsev Defense**
 3. **Ruy Lopez, Exchange**
 4. **Scotch Game**
 5. **Scotch Four Knights**
 6. **Giuoco Piano**
 7. **Two Knights Defense**
 8. **Four Knights**
 9. **Petroff's Defense**
10. **Sicilian Alapin Variation**
11. **Sicilian, Najdorf Variation**
12. **Sicilian, Dragon Variation**
13. **Sicilian, Keres Attack**
14. **Caro-Kann Defense**
15. **Panov-Botvinnik Attack**
16. **Caro-Kann Excahnge Variation**

17. Queen's Gambit Declined
18. Lasker Defense, Queen Gambit Declind
19. Queen Gambit Declined Exchange Var.
20. Slav Defense
21. Queen's Gambit Accepted
22. Nimzo-Indian Defense, Classical Var.
23. Nimzo-Indian Defense, Rubinstein Var.
24. Semi-Slav Defense
25. Queen's Indian Defense
26. Queen's Indian Defense, Petrosian Var.
27. Bogolubow Indian Defense
28. Catalan
29. Gruenfeld Defense
30. King's Indian Defense
31. Modern Benoni Defense
32. Benko Gambit

The moves and explanations of these famous openings are given in many books on chess.

Entering Your Own Opening

LCD Chess also allows you to set up any book opening you want—or even an opening you invent—to practice. Press **OPTIONS** repeatedly until the display shows PLYr. Use + button to set play-ers to 2. Press **CLEAR**, then make moves for both sides until the opening position you want to practice is reached. Now press **OPTIONS** repeatedly until the dis-play shows PLYr. Use the + button to set players to 1. Press **CLEAR** and play against the computer in this position.

Levels of Play

Press **LEVEL** to see the current level. When you are finished reviewing the level or changing the level, press **CLEAR** to return to normal play.

At this point you may press **LEVEL** again to change to a different level type. There are six types of levels.

Beginner Level Type

Press the + or - button to select 1, 2, 3, 4, 5, 7, 10, or 15 seconds per move.

B 001 B 002 B 003 B 004

B 005 B 007 B 010 B 015

Fixed Time Level Type

Press the + or - button to select 1, 2, 3, 5, 10, 15, 20, 30, 45 seconds, and 1:00, 1:30, 2:00, 2:30, 3:00, 5:00 minutes per move. FIXED Time Level "inf" is infinite time, and will only stop thinking when the *GO* key is pressed, or a mate is found.

F 001 F 002 F 003 F 005

F 010 F 015 F 020 F 030

F 045 F 100 F 130 F 200

F 230 F 300 F 500 F inF

Sudden Death Level Type

Press the + or - button to select the amount of time in minutes for the entire game. If you run out of time you lose or forfeit, FrFt will be shown on the dis-play. After every move, you receive a bonus 10 seconds to make up for the time it takes to enter your move.

S 05   S 10   S 15   S 20

S 30   S 45   S 60   S 90

Tournament Level Type

Press the + or - button to select the the amount of time in MINUTES to play the number of moves shown on the left side of the display. If you run out of time before you play the indicated number of moves, you lose or forfeit, FrFt will be shown on the display. After every move, you receive a bonus 10 seconds to make up for the time it takes to enter your

move.

40T 030 45T 045 40T 060 40T 090

35T 090 45T 115 40T 120 45T 145

PLy Level Type

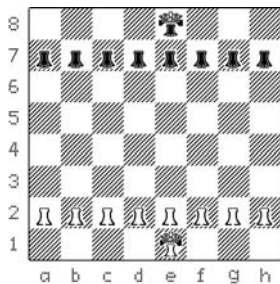Press the + or - button to select the depth of search from 1 to 8 ply. A ply is one half move.

PLY 1   PLY 2   PLY 3   PLY 4
PLY 5   PLY 6   PLY 7   PLY 8

MAtE Solver Level Type

Press the + or - button to select the number of moves to mate the program will search. n☐nE   will appear if no mate is found.

MAt 1   MAt 2   MAt 3   MAt 4
MAt 5   MAt 6   MAt 7   MAt 8

Note: You can only change the level while it is your turn to play.

Kings & Pawns Training

Piece Training

There are five special mini-games and three mate training positions. The most famous and successful chess teachers in the world take their beginning students from the simple to the complex by having them play "mini-games" of chess that concentrate on just one or more types of pieces. Even advanced players practice

these basics, just as a concert pianist continues to practice the scales so that they remain second nature. Like any great trainer, LCD Chess will play you these special practice games.

First make sure you are at the start of a game. Now press *TRAIN* button, then repeatedly press the + key. The mini-games always include the king and pawns for both sides. In fact, one mini-game contains just this material (see figure on left).

The other four mini-games use kings and pawns, but add a different single piece to the exercise-knight, bishop, rook, and then queen.

Start with the basic king and pawns mini-game.

Make your first move. Your object, as in regular chess, is to checkmate the king. Normally, this means both sides will try to force a pawn through to the other side of the board safely to promote it to a queen. You'll learn lots of principles, tricks, and traps in this training mode that will win you many full-fledged chess games!

Checkmate Training

The main objective in the game of Chess is to checkmate your opponents king. LCD Chess, has three special positions that are shown after the five piece training mini games. The Black king will be in the center of the board in those positions. Select one of those positions to practice and improve your technique to checkmate your opponent's king.

Using Setup Mode

At any time during a game when it is your move, you may change the position on the board by adding a piece, removing a piece, or changing any of the pieces—for example, from a queen to a knight.

Removing A Piece

Press **SETUP** then use the ***PREVIOUS PIECE***, ***NEXT PIECE***, ***PREVIOUS MOVE***, ***NEXT MOVE*** buttons to move the king cross over a piece. Press **GO** to remove the piece. Press **CLEAR** to continue the game.

Adding or Changing a Piece

Press **SETUP** then use the ***PREVIOUS PIECE***, ***NEXT PIECE***, ***PREVIOUS MOVE***, ***NEXT MOVE*** buttons to move the king cross to the desired square. Now press the + or - buttons for the desired piece. Press **GO** to place that the piece on the board. Press **CLEAR** to continue the game.

Setting Up Special Positions

This is another terrific feature that allows you to solve problems that you see in magazines or newspapers, or that you make up yourself. It also allows you to enter game positions you want to play, or that you want LCD Chess to look at, perhaps using the Infinite Search level.

Normally, it is easier to start from an empty board to set up such problems. So first, press **OPTIONS** repeatedly until CLbr (clear board) is displayed. Then press the **GO** key. You'll see that the display chessboard will have only the white king, and PrꞐb is displayed.

Make sure that LCD Chess knows which color is to move. You may change the color of the side to move by pressing the

❏ /■ button. The color icons ❏ and ■ below PrꞐb will show the side to move.

Use the ***PREVIOUS PIECE***, ***NEXT PIECE***, ***PREVIOUS MOVE***, ***NEXT MOVE*** buttons to move the king to the square the White king is on. Press **GO** to place that the piece on the board.

Use the ***PREVIOUS PIECE***, ***NEXT PIECE***, ***PREVIOUS MOVE***, ***NEXT MOVE*** buttons to move the king to the square the Black king is on., and then press the ❏ / ■ button to change the White king to a Black king. Press **GO** to place that the piece on the board.

Next, pick out another piece in the problem or position you want to set up. Now press **+HINT** button repeatedly to select the correct piece. Use the ***PREVIOUS PIECE***, ***NEXT PIECE***, ***PREVIOUS MOVE***, ***NEXT MOVE*** buttons to move to the desired square. Press **GO** to place that the piece on the board.

Follow this procedure until all the pieces in the problem or position are completely set up. Finally, press **CLEAR** to play or to have LCD Chess analyze the position.

NOTE: You must place a White and Black king on the board to exit SETUP mode with the **CLEAR** key.

General Rules of Chess

1. The two players must alternate in making one move at a time. The player with the white pieces moves first to start the game.
2. With the exception of castling (see below), a move is the transfer of a piece from one square to another square which is vacant or occupied by an enemy piece.

3. No piece, except the Knight may cross a square occupied by another piece.

4. A piece moved to a square occupied by an enemy piece captures it as part of the same move. The captured piece must be immediately removed from the chessboard by the player making the capture.

5. When one player moves into a position whereby he can attack the King, the King is in "Check". His opponent must either

a) move the King

b) block the path of the attacking piece with another piece, or

c) capture the attacking piece.

6. The game is over when there is no escape for the King from an attacking piece. This is known as "Checkmate".

7. The game is over when the king of the player whose turn it is to move is not in check and the player cannot make any legal moves. This is known as "Stalemate" and is considered a drawn game.
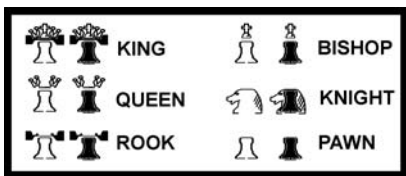
Individual Moves

Turn on the HELP feature (see page 5.) All legal moves for each selected piece will be shown at one time. You will quickly "learn by doing" the movements of all pieces.

1. The Queen can move to any square along the same row, column, or diaganols on which it stands, but cannot pass over an enemy piece.

2. The Rook can move to any square along the same row or column on which it stands, but cannot pass over an enemy piece. See also Castling (below.)

3. The Bishop can move to any square along the diaganols on which it stands, but cannot pass over an enemy piece.

4. The Knight move is in the shape of an "L", moving two squares up or down, and then one square over. Or it can be one square up or down, and then two over.

5. The Pawn can move one square forward. On it's first move it may move two squares forward. When capturing, it moves diaganolly (forward) one square. See also *en passent* (below.)

6. The King can move one square in any direction, as long as it is not attacked by an enemy piece. See also Castling(below)

Special Moves

1. Castling is a move of both the King and either Rook which counts as a single move (of the King) and is executed as diagrammed below:
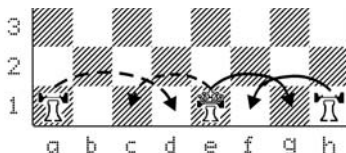
Castling cannot occur if:

a) the King has already been moved.

b) the Rook has already been moved.

c) there is any piece between the King and the Rook.

d) the King's original square, or the square which the King must cross, or the one which it is to occupy is attacked by an enemy piece.

2. A Pawn may make an *en passent* capture if it is a reply move to a double pawn move, and it is a Pawn which is side-by-side with the Pawn which made the double pawn move. The capture of a white Pawn is diagrammed on right:

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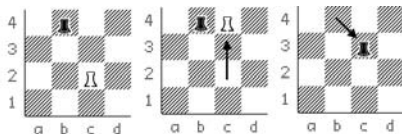
3. A Pawn can be promoted if it advances all the way to the far side of the board. It is immediately promoted, as part of the same move, into a Queen, Rook, Bishop, or Knight, whichever its owner chooses. Since a Queen is the most powerful piece, it is nearly always chosen as the promotion piece. Through the promotion process, there may be more than one Queen on the board at the same time.

Some Tips on Chess

1. Castle your King into safety as soon as possible.
2. If you control the center squares you will achieve an advantage. To do this move your center Pawns and develop your Bishops and Knights early in the game.
3. Take advantage of capture situations, particulary if you will gain material.

Battery Information

• Your LCD Chess uses 2 "AAA" batteries.
• Do not mix old and new batteries.
• Do not mix alkaline & standard or rechargeable batteries.
• Install batteries so that the polarity
(+ and -) matches the diagrams in the battery compartment.
• Use only batteries of the same type and equivalency.
• Remove exhausted batteries from the unit.
• Do not short circuit battery terminals.

Special Care

• Avoid rough handling such as bumping or dropping.
• Avoid moisture and extreme temperatures. For best results, use between the temperatures of 39ºF and 100ºF (4ºC and 38ºC).
• Clean using only a slightly damp cloth. Do not use cleaners with chemical agents.

Computers can sometimes "lock up" due to static discharge or other electrical disturbances. If this should happen, use a slim, pointed object to press the button marked "RESET."

Excalibur Electronics reserves the right to make technical changes without notice in the interest of progress.

FCC Notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

Limited 90 Day Warranty

E123-072808-00